

REMARKS

Summary Of The Office Action & Formalities

Status of Claims

Claims 1-16 are all the claims pending in the application. By this Amendment, Applicant is amending claims 1 and 11. No new matter is added.

Art Rejections

1. Claims 1, 2, 4, 8, 10-14 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Garrigou (US 3,625,437).
2. Claims 3, 5-7, 9 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Garrigou (US 3,625,437) in view of Ennis, III (US 4,923,448).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 102

- 1. Claims 1, 2, 4, 8, 10-14 And 16 In View Of Garrigou (US 3,625,437).*

In rejecting claims 1, 2, 4, 8, 10-14 and 16 in view of Garrigou (US 3,625,437), the grounds of rejection state:

In regard to Claims 1, 8, 10, 11 and 12, Garrigou (3,625,437) teaches a fluid dispenser device that includes a fluid spray head manufactured from a common mold (Column 1, Lines 30-68) where the spray head has an expulsion channel (13) with a spray orifice (14) and a spray profile (15,16,17) are formed in an end wall of the spray head where non radial spray channels (17) are formed to the swirling chamber (Column 3, line 46-55) which opens to a spray chamber (16) that is disposed upstream of the spray orifice (14) where an insert (2) is disposed in the expulsion channel (13) so as to form a cover for the spray profile (15,16,17) where the central axis (X) of the insert (2) is substantially identical to the central axis (Y) of the expulsion channel (13) (Figure 4) and where the expulsion channel (13) further has a centering means (19) for centering the insert (2) within the spray head that is

located in the expulsion channel (13) for centering the insert (2) where the centering means (19) is in close proximity to the spray profile (15,16,17).

Office Action at page 4. Furthermore, the Examiner responds to Applicant's previous arguments as follows:

Applicant's arguments with respect to the "insert" as recited in claims 1 and 2 of the present application have been considered but are moot in view of the new ground(s) of rejection in view of the Garrigou (US 3,625,437) that changes "insert (9)" as indicated in Office Action mailed 10/06/2006 to "insert (2)" keeping in better accordance with the disclosure of Garrigou that overtly teaches where the spray head for a pressurized container comprises an insert (2) that forms an internal nozzle that is centered thus, making Applicant's arguments irrelevant and unfounded. Applicant is directed to Column 3, line 31—Column 4, line 43 with emphasis on lines 42-55 of Column 3 of Garrigou (US 3,625,437) (see also International Search Report of PCT/FR2004/002006).

Office Action at page 2.

Claim 1 and the description at page 2, line 16 have been amended to correspond more correctly with the language in the original French specification. Specifically, the French specification states "le fond du profil de pulvérisation". The word "fond" more accurately corresponds to the "base surface" of the spray profile, as opposed to a "cover" for the profile. It also is clear from the description at page 4, lines 1-25, that the front surface of the insert forms the rear or base surface of the spray profile 10 and spray chamber 12, the chamber being disposed directly upstream from the spray orifice.

Claim 1 has been amended to recite "an insert forming an internal nozzle, said insert being introduced through the inside of said spray head," which is supported by the description at page 4, line 15.

Amended claim 1 thus covers:

- an insert forming an internal nozzle, introduced through the inside of the head—not from its outside—the insert forming the base surface of a spray profile, and
- means provided by the expulsion channel for centering the nozzle.

Garrigou does not disclose a spray head having an insert forming an internal nozzle. On the contrary, the nozzle insert 2 is fixed from the outside of the spray head, into the recess 6 (expulsion channel), tightly around a pin 8 (*see* column 3, line 72-column 4, line 4). Contrary to the requirement of claim 1, the nozzle insert 2 does not form the base surface of the spray profile, since the spray orifice (nozzle opening 14) is provided in the center of the front surface 12 of said nozzle insert 2.

Moreover, there is no “centering means” provided by the expulsion channel 6 for centering the nozzle insert 2.

The position set forth in the grounds of rejection that “the expulsion channel 13 further has centering means 19 for centering the insert 2 within the spray head,” is not consistent with the disclosure in Garrigou and, in particular, column 3, lines 42-43 of this patent. The lateral wall 13 of the nozzle insert 2 cannot, at the same time, be a part of the insert 2 and the expulsion channel within which the insert 2 is disposed.

In view of at least the foregoing differences, claims 1, 2, 4, 8, and 10 are not anticipated by Garrigou. For similar reasons, claims 11-14 and 16 are also not anticipated by this patent.

1. Claims 3, 5-7, 9 And 15 Over Garrigou (US 3,625,437) In View Of Ennis, III (US 4,923,448).

In rejecting claims 3, 5-7, 9 and 15 over Garrigou (US 3,625,437) in view of Ennis, III (US 4,923,448), the grounds of rejection state:

In regard to claim 3 and 15, Garrigou as taught and described above teaches the claimed invention except for the expulsion channel (13) having three flat surfaces that are symmetrically arranged about the expulsion channel (13) where the flat surfaces cooperate with the insert (9) to center the insert (9) relative to the expulsion channel (13). Ennis, III (4,923,448) teaches that it is known to have an expulsion channel (52) that includes at least 3 flat surfaces (64) that are symmetrically placed about the expulsion channel (13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the flat surfaces (64) of the expulsion channel (52) as taught by Ennis, III to the expulsion channel (13) of Garrigou, in order to provide for a non cylindrical means for centering the insert (9) about the expulsion channel (13) so as to offer better tolerance control in offsetting the insert from the expulsion channel for minimizing the amount of space that a fluid can travel for atomization of spray with directional control through the spray openings.

In regard to claims 5-7, 9, Garrigou as taught above discloses the claimed invention except for the following: a central axis of the insert (9) being offset from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than 0.03 mm; a spray chamber having a diameter of 1 mm; a spray orifice having a diameter of 0.3 mm; and the standard deviation of the offset between the central axis of the insert relative to the central axis of the expulsion channel being less than 0.05 mm and preferably less than 0.02 mm. It would have been an obvious matter of design choice to offset the central axis of the insert (9) from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than 0.03 mm as applicant has not disclosed that offsetting the central axis of the insert (9) from the central axis of the expulsion channel (13) by a distance of less than 0.08 mm, and preferably less than 0.03 mm solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the central axis' not being offset from one another where offsetting the central axis' would provide a benefit that would ensure a spray would be directed past the projections through the expulsion channel.

It would have also been an obvious matter of design choice to provide for a spray chamber having a diameter of 1 mm and a spray orifice having a diameter of 0.3 mm as providing for such dimensions of the spray chamber and spray orifice as claimed are

not disclosed by applicant so as to solve any stated problem or is for any particular purpose and appear that the invention would perform equally well if the dimensions of the spray chamber of 1 mm and the spray orifice of 0.3 mm were larger where the sizing of such benefits in atomization of a spray fluid through the restricted opening for directing the fluid.

It would have been a further obvious matter of design choice to provide for a standard deviation of less than 0.05 mm and preferably less than 0.02 mm for the offset between the central axis of the insert relative to the central axis of the expulsion channel since applicant has not disclosed that providing for a standard deviation of less than 0.05 mm and preferably less than 0.02 mm for the offset between the central axis of the insert relative to the central axis of the expulsion channel solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well without an offset between the insert and expulsion channel where offsetting the central axis' would provide a benefit that would ensure a spray would be directed past the projections through the expulsion channel.

Office Action at page 5-7. Further the grounds of rejection respond to Applicant's previous arguments as follows:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Garrigou discloses an external nozzle 2 and, therefore, does not provide any teaching or suggestion for avoiding the risk of the spraying nozzle being expelled during use. See also pages 9-11 of arguments) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). At the same time, nowhere in Garrigou does it state that the nozzle (2) is an external nozzle and it can be shown from Figures 1 and 2 that nozzle (2) sits within a recess (6) where the nozzle (2) is centered by fixing elements and it appears that Applicant creates a deficient characteristic that is in fact taught by Garrigou in an attempt to make a persuasive argument to overcome the prior art rejection held under Garrigou in view of Ennis, III. Applicant's arguments in this regard are not persuasive.

Furthermore, Applicant uses erroneous information in viewing Ennis, III. Applicant claims that the expulsion channel (22) does not have any means for centering the spray nozzle or the spray orifice when Examiner never refers to the expulsion channel as “22”. Applicant is directed to page 3 of Office Action mailed 10/06/2007 where in line 7 Examiner points to “52” as being the expulsion channel of Ennis, III that unquestionably show, disclose and teach where the expulsion channel “52” has at least three flat surfaces (64) for centering a nozzle (2) such as that taught by Garrigou.

In view of the new grounds of rejection for 102 (b) that changes insert “9” as mentioned in Office Action mailed 10/06/2006 under 35 U.S.C. § 102 (b) to insert “2” in Garrigou (see below), it follows that Examiner must also change insert “9” to insert “2” thus presenting a new grounds of rejection being held under 35 U.S.C. § 103(a) with Garrigou in view of Ennis, III.

Office Action at pages 2-3. Applicant respectfully disagrees.

As a preliminary matter, claims 3, 5-7, 9 and 15 are allowable at least by reason of their respective dependencies.

In addition, it is clear from Ennis, III that the cylindrical wall 52 of the cup shaped nozzle tip 50 cannot be assimilated into an expulsion channel. The description, figures and claims all refer to the tubular nozzle 22 as being the expulsion channel. Claim 1 recites “a nozzle having tubular wall [...] and a free open end for discharging said liquid therefrom”, whereas the cup shaped nozzle tip (50) acts as a spray profile, “providing different passages to pass liquid turbulently to and through said apertures and thereby producing an atomized spray”.

Therefore, the three flat surfaces 64 referred to by the Examiner are internal projections extending from the nozzle tip 50 and not from the expulsion channel 22.

The problem of avoiding the risk of the spraying nozzle tip being expelled during use is not raised in this document. On the contrary, the ease of removing the nozzle tip 50 is described as being achieved by insertion of a stiff wire from the open end of the barrel of the syringe (*see*

column 3, lines 28-33), in order to reuse the nozzle 22. The nozzle tip 50 is thus not an internal nozzle according to claim 1 as it can be removed through the front surface of the expulsion channel (tubular nozzle 22).

Moreover, one skilled in the art would not be led to the internal centered nozzle of claim 1, even under the Examiner's stated combination of Garrigou and Ennis, III:

- the "expulsion channel" 13 of Garrigou (which actually is the lateral wall 13 of the external nozzle insert 2), with
- the flat surfaces 64 of the "expulsion channel" 52 of Ennis, III (which actually is the cylindrical wall 52 of the external nozzle tip 50)

In conclusion, none of the cited documents provide any indication of avoiding the risk of expelling the spraying nozzle during use and the guarantee of proper fluid spray characteristics and performance that are consistent and reproducible.

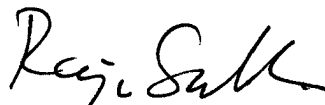
The dispensing devices of both documents necessary implies the use of an *external* spray nozzle tip and thus do not provide any indication to a person skilled in the art to achieve the present claimed solution comprising an internal centered nozzle.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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Date: July 17, 2007